

POSSIBILITIES START HERE

▶ AL PI-TRON CM3+ & AL PI-TRON CM4



Board - Line

RASPBIAN LINUX HAT-RAIL COMPUTER

The Internet of Things (IoT) demands ever smaller but nevertheless high-performing controller solutions as standard. They must also provide a wide array of industrial-use interfaces to offer expansion options for various applications.

One special feature of our Automation Line Pi-Tron is that we make the Raspberry Pi processor variants Compute Module CM3+ and CM4 available in a chassis suited for hat-rail mounting. The Pi-Tron CM4 features an HDMI slot for standard display devices as well as LVDS display connectivity via an adapter board. 24 V power supply ensures easy integration with industrial applications.

Further inputs and outputs can be added easily via multifunctional I/O modules. Communication is via CAN interface.

▶ FEATURES

- ▶ Compact Box-PC
- ▶ Raspbian Linux operating system
- ▶ Wide range of interfaces
- ▶ Robust chassis
- ▶ Flexible top-hat rail assembly

▶ CUSTOMER BENEFITS

- ▶ Small, compact design
- ▶ Optional expansion via multifunctional I/O module
- ▶ Excellent price/performance ratio
- ▶ Large community providing software examples and fully translated program packages.

▶ APPLICATIONS

- ▶ Automation
- ▶ IoT Gateways
- ▶ Communication
- ▶ Edge Computing
- ▶ Mechanical Engineering
- ▶ M2M (machine-to-machine) Gateway

► TECHNICAL DATA

FUNCTION	STANDARD-EQUIPMENT CM3+	STANDARD-EQUIPMENT CM4
MICROPROCESSOR	PI-TRON CM3+	PI-TRON CM4
CPU	Broadcom BCM2837B0 4x Arm® Cortex®-A53 @1.2 GHz	Broadcom BCM2711 4x Arm® Cortex®-A72 @1.5 GHz, H.265 (HEVC) up to 4Kp60 decode, H.264 up to 1080p decode, 1080p30 encode OpenGL ES 3.0 graphic
MEMORY		
LPDDR4-RAM	–	1 GB/2 GB/4 GB /8 GB
LPDDR2-RAM	1 GB	–
eMMC*	Compute Module CM3+: 8 GB/32 GB	Compute Module CM4: 8 GB/16 GB/32 GB
SD card	Compute Module CM3+ Lite, 1x microSD Card Slot for operating system	Compute Module CM4 Lite, 1x microSD Card Slot for operating system
FRAM	16 kbit	32 kbit
COMMUNICATION		
Ethernet	2x 10/100 Mbit/s	1x 1 Gbit/s, 1x 10/100 Mbit/s
USB	2x 2.0 Host	2x 2.0 Host, 1x 2.0 OTG
Serial	1x RS232, 1x RS485	1x RS232, 1x RS485
CAN	1x 2.0	1x 2.0 FD
DIO	4x DIO (24 V/up to 800 mA)	2x DIO (24 V/up to 800 mA)
WLAN / Bluetooth	–	Optional
DISPLAY/TOUCH		
LCD interface	1x 2-lane DSI Display Interface (up to 1 Gbit/s per lane, DSI 1) 1x Micro-HDMI 1.3a 1080p @30 fps	1x 2-lane DSI Display Interface (up to 1 Gbit/s per lane, DSI 1, 1x HDMI 2.0 (up to 4Kp60 are supported)
Touch	1x I²C, 1x USB	1x I²C, 1x USB
Camera interface	1x 2-lane CSI Camera Interface (CSI 1)	1x 2-lane MIPI CSI Camera Interface
OTHER		
Power supply	24 V DC ±20 %	24 V DC ±20 %
Power consumption	3.4 W... 9.6 W (without periphery)	TBD
Form factor	Stainless steel housing 111 x 25 x 76 mm for mounting on 35 mm mounting rail acc. to EN 60715	
Temperature range	0 °C ... +55 °C	0 °C ... +55 °C
Protection class	IP20	IP20
Approvals	FCC and UL61010, CB report	CE
SOFTWARE		
Operating system	Raspbian Linux (not preinstalled)	Raspbian Linux (not preinstalled)

* AL Pi-Tron CM4: When using eMMC memory, booting from the SD card is not possible.

AL Pi-Tron CM3+: Versions with eMMC memory do not feature an microSD Card Slot.

► YOUR CONTACT

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